

Remarks

In the Advisory Action, the Examiner notes that the amendment in response to the final office action does NOT place the application in condition for allowance because: Applicant argues that Ding et al. do not teach a composition that increases in viscosity in a more humid environment. The Examiner disagrees because Ding et al. teaches that the hydrogel have reverse gelation properties and exist as liquid, but forms hydrogel at body temperature, hence increases in viscosity (see abstract). Further, the hydrogel can also increase in viscosity in a more humid env't. Applicant further argues that Green does not disclose carboxyplymethylene and polyvinylpyrrolidone. The examiner agrees. However, Ding teaches these materials and therefore, under 35 USC. 103(a) in combined with Green for obviousness. Further, Matthews teaches therapeutic agent of peroxide, thus the examiner believes that the combination of Green et al. and Ding et al. in view of Matthews is proper. Regarding prima facie case of obviousness, while there must be some teaching, reason, suggestion, or motivation that the references be combined to arrive at the claimed invention, there is no requirement that the references explicitly suggest the combination. In re Nilssen, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988). The suggestion or motivation to combine the references or teachings can derive solely from the existence of a teaching, which one of ordinary skill in the art would be presumed to know, and the use of that teaching to solve the same or similar problem which it addresses. In re Wood, 599 F.2d 1032, 1037, 202 USPQ 171, 174 (CCPA 1979). The examiner also suggests incorporating additional structure/properties of hydrogel and the device into the independent claims in order to differentiate from prior arts of record.

Applicant thanks the Examiner for the consideration and the courtesy of the telephone interview to discuss the Advisory Action.

Applicant hereby amends claim 18 to delete “or temperature” from line 4 and to incorporate the limitation of claim 19. Claim 19 is canceled without prejudice. Claims 18, 20, 25-42, and 51-58 are now pending in the case.

Further, Applicant wishes to point out that while the Ding et al may have disclosed “that the hydrogel have reverse gelation properties and exist as liquid, but forms hydrogel at body temperature, hence increases in viscosity (see abstract)”, the reverse gelation properties are directed to “carrier hydrogel compositions comprise gelling materials that possess a reverse thermal gelation property, and at least one peptide, i.e., T20, T1249 or a derivative thereof. The carrier hydrogel compositions exist as liquid, aqueous solutions at temperatures that are below physiological temperatures. However, when the gelling materials are exposed to physiological temperatures (e.g., temperatures of about 37 degree C.) they form a polymer gel which is biodegradable or at least bioerodible. temperature the carrier hydrogel composition is heated to the patient's body temperature and forms a polymer gel which then acts as a sustained-release matrix for the peptides.” See Col. 2, Line 65 to Col.3, Line 14. Emphasis added. The reference then goes on to disclose that “(a)queous solutions of these polymers form micelles (microscopic spheres incorporating water) at low concentrations, and turn into thick continuous gels at higher concentrations (e.g., approximately 20-30% by weight) and elevated temperature (e.g., approximately 30.degree. C.)” (Emphasis added). See Col. 6, Line 35-40. Thus, the disclosure of a reverse thermal gelation property at high concentration does not teach a reverse gelation property at low concentration, but at high concentration. (Emphasis added) Applicant’s claims recite “a liquid oral therapeutic dental composition, said therapeutic dental composition comprises a moisture responsive composition that increases in viscosity in a more humid environment”, which is diametrically oppose to increasing viscosity at high temperature and high

concentration. (Emphasis added) The reference clearly teaches away and teaching away by a reference is a strong argument against obviousness. Reconsideration is respectfully requested.

CONCLUSION

In view of the remarks set forth above, Applicant respectfully submits that the application is in condition for allowance and early notice thereof is respectfully solicited.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact the undersigned at 310-621-6415.

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Respectfully submitted,

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